

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-001316**Date Inspected:** 07-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** Office, Lift 2 West, Lift 2 East, Lift 3 East, Lift 3 West**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

**Office**

Attend to report writing and project documentation.

**Lift 2 West**

Internal surfaces of "U" ribs and upper floor beams "Final" inspection requested from ZPMC for Panel Points #13-15, some minor touch-up was performed during the inspection and the undercoated surfaces were in general compliance. Adhesion test carried out in repaired area and a value of 6.70Mpa was observed ZPMC will remove scaffold access.

**Lift 2 East**

External surfaces of the Traveler Rail Brackets were observed to have mud crack and other damages to Undercoated surfaces. ZPMC re-abrasive blasted to base metal and an SSPC SP-10 condition and re-applied Interzinc 22 to all 5 traveler Rail brackets affixed to the East Side Plate. Profile amplitude was 72-78um.

**Lift 2 West**

Caltrans QA Lumley observed ZPMC personnel sanding Traveler Rail Brackets on West Side Plate previously coated with Interzinc 22. Dry Film Thickness (DFT) were measured with ABF Bill Oak and found to be 40-50um and below minimum specified. Bill Oak also re-checked the affected areas as well and informed Caltrans QA Lumley repairs would be made.

**Lift 3 East**

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## SOURCE INSPECTION REPORT

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Internal repair areas of the Upper Floor Beam longitudinal stiffener areas of Panel Point #19 were re-inspected and discovered to have previously marked repair areas not addressed, Inspection taken place aboard Transport Ship #17 which is moored offshore, also the Cross Beam /FL-3 Beam termination was requested for "Final" inspection as well and found to be incomplete as well.

### Lift 4 East

Internal surfaces of the Upper Longitudinal stiffener of the Floor Beams from Panel Points 24-28 as well as the Cross Beam/FL-3 Beam termination was requested for inspection aboard the Transport Ship #17 moored offshore. Work was found to be non-compliant as previous inspection had revealed on 10-6-09. ZPMC personnel had power-tool cleaned the welded repair areas of the Upper Floor Beam as was previously inspected on Panel Point #24. ZPMC failed to perform repairs in accordance with the contract documents and no coating was permitted to be applied, rather ZPMC continued doing the same surface preparation over more areas.

### Lift 2 East

Repair areas of the Top Plate at Panel Point #16 were re-abrasive blasted to base metal and an SSPC SP-10 condition and Interzinc 22 re-applied. These areas were subjected to additional NDT for weld defects and repaired. Chloride value was observed at 30us/cm.

### Lift 2 West

ZPMC requested an inspection of the Top Plate repairs of additional NDT areas at Panel Point #16, work was incomplete at time requested.

Note: All inspections were performed jointly with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representative were available for inspections and consultation.

### Summary of Conversations:

Caltrans QA Lumley inquired with ABF QA Bill Oak as to why ZPMC continued to perform repairs to areas of Lift 4 East internal Floor Beam in the same manner that was non-compliant on the previous days inspection.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang. (858) 699-7549, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lumley,James	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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